

Chunyi Peng

Computer Science, Purdue University

Research Interests

Cellular networks (4.9G/5G/6G), network intelligence, autonomous and connected drones, 5G/IoT security

Education

University of California, Los Angeles

Ph.D, Computer Science

Dissertation: Cellular Network for Mobile Devices and Applications: Infrastructure Limitations and Solutions

Los Angeles, USA

Sep. 2009 – June 2013

Tsinghua University

M.E, Automation (with highest honors at Tsinghua university, Best Thesis Paper Award)

Beijing, China

Sep. 2002 – Jan. 2005

Tsinghua University

B.E, Automation (with highest honors at Tsinghua university and in Beijing)

Beijing, China

Sep. 1998 – July 2002

Appointments

Computer Science, Purdue University

Associate Professor

Assistant Professor

West Lafayette, USA

Aug. 2020 – now

Aug. 2017 – Aug.2020

Computer Science Engineering, Ohio State University

Assistant Professor

Columbus, USA

Aug. 2013 – Aug. 2017

Microsoft Research Asia

Associate/Assistant Researcher on Wireless Networking Group

Beijing, China

Dec. 2005 – Sep. 2009

T3G Ltd.,

Engineer on 3G TD-SCDMA chipset development

Beijing, China

Jan. 2005 – Dec. 2005

Short-Term Appointments

Microsoft Research

Research Intern on Mobility & Networking Group

Redmond, USA

Nov. 2012 - Feb. 2013

IBM TJ Watson Research Center

Research Intern on Cloud Computing and Wireless Networking Groups

Yorktown Heights, USA

June – Sep. 2012, June – Sep. 2011

Selected Honors and Awards

2019 Award from Google Android Security on reporting WiFi calling's vulnerability

2018 NSF CAREER Award

2018 ACM MobiCom Best Demo Award

2018 IEEE CNS Best Paper Award

2017 ACM MobiCom Best Community Paper Award

2017 Facebook's Bounty on reporting a vulnerability on SMS for Facebook

2016 ACM MobiCom Best Community Paper Award

2013 Northrup-Grumman Outstanding Graduate Student Award, UCLA

2011 IBM Ph.D. Fellowship Award

2009 UCLA Chancellor's Prize with Graduate Fellowship (2009-2011)

2008 ACM MobiSys Best Demo Award

2007 ACM SenSys Best Demo Award

2007 ACM MobiSys Best Demo Award

Publications (Citations: 4557, H-index: 28)

<http://scholar.google.com/citations?user=7QF1eF4AAAAJ>

Selected Talks

- *Reflections of My Career Path: the Good, the Bad, the Ugly*, Keynote at NeTS Early Career Workshop 2019, Alexandria, VA, Aug. 2019
- *AIM: Amplifying Intelligence in Mobile Networks*, MIT, UIUC, UT Austin, Chicago, USC, Notre Dame, Rice, MSU, Indiana, Qualcomm, NEC, AT&T, May. 2018 - Mar. 2019
- *Verifying Cellular Network Operations On Your Phones From Simulation to Practice*, IEEE Globecom'17 Tutorial, Singapore, Dec. 2017
- *A Security Perspective on VoLTE Our Untold Research Story and Lessons*, Invited by GSMA (GSM Association), Toronto, Canada, Sep. 2016 (Audience: 100+ global operators and vendors at GSMA)
- *Internet" of Things: An Architectural Perspective from Mobile Networks*, Keynote at 10th ACM International Workshop on IoT and Cloud Computing, Wuxi, China, Dec. 2015

Software and Datasets

- [S1] MobileInsight (<http://www.mobileinsight.net>) · Version 5.0 · Jul. 2020
 - Dataset: > 600GB (still growing)
- [S2] MI-Lab (<http://milab.cs.purdue.edu/>) · Version 4.1 · July. 2020
 - Dataset: 9.8TB (still growing)
- [S3] MMap (https://mssn2.cs.purdue.edu/mmap_v2/maps/) · Version 2.1 · Aug. 2019
 - Dataset: > 16M RTTs, > 1.6M handoffs, > 188K cells in 32+ carriers in 15 countries and regions
- [S4] HackCellular (All-In-One Demo of Real Attacks in 4G network) · Version 1.0 · Dec 2015
- [S5] CNetVerifier (Verifier of control-plane protocol interactions in 4G/3G) · Version 1.0 · Dec 2014

Teaching

- CS 536 · Data Communication and Computer Networks · Fall'20, Spring'20, Spring'18
- CS 422 · Computer Networks · Fall'19
- CS 590 · Embracing 5G and Beyond 5G (Mobile Network Intelligence) · Spring'19, Fall'17
- CS 354 · Operating System · Fall'18
- CSE3461 (OSU) · Computer Networking and Internet Technologies · Spring'17, Fall'15, Fall'14, Spring'14
- CSE5469 (OSU) · Advanced Topics on Cellular Networks · Fall'15
- CSE5469 (OSU) · Advanced Topics on Mobile Networking and Systems · Spring'14

Selected Professional Service

- **Program co-chair** for
 - ACM International Conference on Mobile Computing and Networking (MobiCom) · 2021
 - ACM International Workshop on Wireless Network Testbeds, Experimental evaluation & Characterization (WiNTech, co-located with MobiCom) · 2017
 - ACM Workshop on Visible Light Communication Systems (VLCS, co-located with MobiCom) · 2015
- **Steer Committee Member** for ACM International Workshop on Wireless Network Testbeds, Experimental evaluation & Characterization (WiNTech), 2018 – now
- **TPC Member** for
 - MobiCom (2014 - 2020), MobiSys (2014, 2015, 2017, 2020), INFOCOM (2016, 2017, 2021), ICNP (2015, 2016), WWW (2017, 2018), SECON (2015, 2017, 2018), HotMobile (2016, 2017), NDSS (2016, 2017), CNS (2016 - 2020), AsiaCCS (2018-2019), etc.
- **Editor** for Computer Networks (COMNET), 2019 – now
- **Mentor** of Horizon Program (for first-generation college students), 2019 – now